

REMARKS

Claims 1-7, 9-20, and 43 are pending herein.

I. The obviousness rejections of claims 1-20 based on Gelbart (US 5,305,091), as noted on page 2 of the Office Action.

The USPTO respectfully rejects claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable based on Gelbart. Claim 1 is an independent claim. Claim 8 is respectfully cancelled.

A. Gelbart does not teach or suggest a first motor structured to rotate the second portion with respect to the first portion, as claimed in claim 1.

Claim 1 claims in relevant part:

“a first motor **structured to rotate the second portion** with respect to the first portion

at least a first optical fiber system ~~for optically interconnecting the first laser radiation source and the first optical detector with that connects to both the first light source and the first optical detector, the first optical fiber system having an emission end of the first optical fiber system, the emission end disposed on the rotatable second portion for emitting laser radiation and configured to emit light~~ to the remote target and ~~for receiving laser radiation to receive light reflected from the remote target.”~~ **(emphasis added)**

No new matter is added by the amendments. Support for the amendments is found in present Figures 1-3. Regarding these limitations, it is respectfully not seen where the cited references teach or suggest the claimed structure quoted above.

For example, the USPTO respectfully argues on page 2 of the Office Action that structure 3 of Gelbart is a portion that rotates with respect to a room 1. However, regarding the amendments, Gelbart respectfully does not teach or suggest at all any structure corresponding to a motor to rotate structure 3 of Gelbart.

Additionally, it would not make technical sense to modify the structure in Gelbart to include a first motor to rotate structure 3 because such a modification would be contrary the explicit “principle of operation” of the device in Gelbart (see MPEP 2143.01 VI). For example, as discussed in column 3 lines 40-51 of Gelbart, the positions of structures 3 are fixed and known

from previous calibrations, and these positions are used to make a measurement. Thus, **for the device in Gelbart to work properly, structures 3 must stay fixed in place, and therefore there is no reason to modify Gelbart to include a motor to rotate structure 3.**

Additionally, if structures 3 of Gelbart are rotated by a motor, the entire system would need to be recalibrated. This recalibration would add time and expense to the use of the device in Gelbart. Furthermore, if structures 3 of Gelbart were rotatable by a motor, it would not be possible to use the known fixed positions of transceivers 3 to make a measurement. Therefore, **modifying the device of Gelbart to include a first motor to rotate structure 3 is contrary to the principles of operation of the device in Gelbart.** As noted in MPEP 2143.01, “If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then **there is no suggestion or motivation to make the proposed modification.**” (emphasis added).

Applicants are also respectfully aware that Figure 4 of Gelbart shows motors 23 and 25. However, it is respectfully important to note that **these motors 23 and 25 of Gelbart rotate mirrors 21, 22, and not structure 3, i.e., the purported second portion.** It is further respectfully important to note that mirrors 21, 22 themselves cannot be the specifically claimed second portion of claim 1 because there is no emission end of the first fiber optical system disposed on mirrors 21, 22.

Thus, overall, Gelbart respectfully does not teach or suggest a first motor structured to rotate the specifically claimed second portion of claim 1, and it would not make technical sense to modify the device in Gelbart to include a first motor.

In contrast, present Figures 1-3 illustrate at least one possible embodiment of the claimed structure quoted above. For example, present Figure 1 shows a stationary base 101 (i.e., a first portion), and **a rigid structure 190 (i.e., a second portion) that can be rotated with respect to stationary base 101 by motors 80, 81.** Additionally, as explained in detail on page 15, lines 11-17 of the present specification, **motor 81 rotates rigid structure 190 so that laser beam 153 points toward retroreflector 107.** In other words, motor 81 is one possible embodiment of a first motor structure to rotate the second portion, as claimed in claim 1.

The distinction noted above is important and non-trivial because it results in significant advantages over conventional devices. For example, as noted on page 5 of the present

specification, the specifically claimed structure of claim 1 allows for improved laser beam steering, six degree of freedom measurements, and the capability to locate multiple retroreflectors distributed throughout large volumes. Additionally, the specifically claimed device of claim 1 can be easily manufactured at a low cost without requiring complex beam-steering optics.

Thus, it is respectfully asserted that Gelbart does not teach or suggest all of the limitations of independent claim 1. Therefore, it is respectfully asserted that independent claim 1 is allowable over Gelbart.

B. The dependent claims.

As noted above, it is respectfully asserted that independent claim 1 is allowable, and therefore it is further respectfully asserted that dependent claims 2-7 and 9-20 are also allowable.

II. New claim 43.

Applicants respectfully note that new claim 43 has been added. No new matter is added by the amendments. Support for the amendments is found on page 16, lines 8-13 of the present specification.

III. Conclusion.

Reconsideration and allowance of all of the claims is respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Please contact the undersigned for any reason. Applicants seek to cooperate with the Examiner including via telephone if convenient for the Examiner.

Respectfully submitted,

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